

19

immediate early protein (IE1) of the human cytomegalovirus in stable cell lines and its preferential association with metaphase chromosome. *Virology*. 172: 584–600.

(10) Guan K. and Dixon J. (1991) Eukaryotic proteins expressed in Escherichia coli: An improved thrombin cleavage and purification procedure of fusion proteins with glutathione S-transferase. *Analyt. Biochem.* 192: 262–267.

(11) Sambrook J., Fritsch E. and Maniatis T. (1989): Molecular cloning, a laboratory manual. Cold Spring Harbor Laboratory Press.

(12) Sanger F., Nicklen S. and Coulson A. R. (1977) DNA sequencing with chain terminating inhibitors. *Proc. Natl. Acad. Sci. USA* 74: 5463–5467.

(13) Marston F. A. O. (1986): The purification of eukaryotic polypeptides synthesized in Escherichia coli. *Biochem. J.* 240: 1–12.

20

(16) Towbin H., Staehelin T. and Gordon J. (1979): Electrophoretic transfer of proteins from polyacrylamide gels to nitrocellulose sheets: Procedure and some applications. *Proc. Natl. Acad. Sci. USA* 76: 4350–4354.

5

(17) Stenberg R., Depto A. S., Fortney J. and Nelson J. (1989) Regulated expression of early and late RNAs and protein from the human cytomegalovirus immediate early gene region. *J. Virology* 63: 2699–2708.

10

(18) Davrinche C., Pasquier C., Cerutti M., Serradell L., Clement D., Devauchelle G., Michelson S. and Davignon J-L. (1993) Expression of human Cytomegalovirus Immediate-early protein IE1 in insect cells: Splicing of RNA and recognition by CD4+ T-cell clones. *Biochem. Biophys. Res. Com.* 195: 469–477.

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(iii) NUMBER OF SEQUENCES: 2

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 38 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CCCGGGATT CTCATGGTCA AACAGATTA GGTCGAG

38

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 34 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

CCCGGGAAAGC TTTTACTGGT CAGCCTTGCT TCTA

34

(14) Smith D. B. and Johnson K. S. (1988) Single-step purification of polypeptides expressed in Escherichia coli as fusions with glutathione S-transferase. *Gene* 67: 31–40.

(15) Laemmli U. K. (1970): Cleavage of structural proteins during the assembly of the head of the bacteriophage T4. *Nature* 227: 680–685.

60

What is claimed is:

1. A method for increasing the immunogenicity of an antigen in an individual, the method comprising administering to the individual a composition consisting essentially of the antigen combined with a particulate vector, the particulate vector consisting essentially of a non-liquid hydrophilic core.

65